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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,123	02/17/2004	Kurt Weckstrom	3003-00043	6501
26753	7590	03/07/2006	EXAMINER	
ANDRUS, SCEALES, STARKE & SAWALL, LLP 100 EAST WISCONSIN AVENUE, SUITE 1100 MILWAUKEE, WI 53202			CHRISTENSEN, RYAN S	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/780,123	WECKSTROM, KURT	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ryan Christensen	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-13 and 17-19 is/are rejected.
- 7) ☒ Claim(s) 7, 14-16, 20, 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/17/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

Claims 6, 7, 14-16, 19, 20, and 21 are objected to because of the following informalities: With respect to claims 6, 7, 19, 20 and 21, the inclusion of the word "claims" appears to be a typographical error. It appears the claims are intended to read "The liquid separator of claim ..." Appropriate correction is required.

Claims 14-16 provide for the use of a structure, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10

USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 8 and 12 recites the broad recitation "narrowing angle of the input passage is between the values 30 degrees and 0.5 degrees", and the claim also recites "preferably less than 20 degrees and more than 3 degrees" which is the narrower statement of the range/limitation.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, 6, 9, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,886,528 (Aaltonen et al.). With respect to claim 1, Aaltonen et al. disclose an input passage (17, Fig. 6) having an input end and an output end (Fig. 6), an output passage (10, Fig. 6) having an input end and an output end (Fig. 6), a wall formed of a gas permeable and liquid impermeable material (Col. 2, lines 3-

Art Unit: 2856

17) separating the input passage and the output passage (3, Fig. 6), means for introducing a gas sample containing liquid through the input end into the input passage (Col. 3 lines 15-17) with a first portion of the gas passing through said wall to the output passage and a second portion of the gas and the liquid remaining in the input passage (Col. 3 lines 17-31), a vacuum means (8, Fig. 5) for flowing the first portion of the gas through the output end from the output passage to a measuring unit (5 and 6, Fig. 5), a first conduit connecting the output end of the input passage (13, Fig. 6) for conducting the second portion of the gas and the liquid further on with vacuum means, the output passage being arranged to widen towards the output end of the output passage (Elements 5, 6, and 8 chambers which are wider than passage 10).

With respect to claim 2, Aaltonen et al. disclose the widened portion of the output passage extends over at least about half of the output passage length (the widened portions as 5, 6, and 8 in Figure 5 ).

With respect to claim 5, Aaltonen et al. disclose the profiles of the input and output passages are formed by positioning said wall separating the input and output passages in an angular position with respect to the longitudinal directions of the input and output passages (Fig. 6).

With respect to claim 6, Aaltonen et al. disclose a vacuum means (8, Fig. 6) connected to the output end of the output passage by using a conduit connected without bends to the output end of the output passage (Fig. 6).

With respect to claim 9, Aaltonen et al. disclose a liquid receiving means (15, Fig. 6), which is connected to the output end of the input passage (13, Fig. 6) for conducting

the second portion of the gas and the liquid to the liquid receiving means (Col. 3, lines 22-29).

With respect to claim 19, Aaltonen et al. disclose a vacuum means (8, Fig. 6) connected to the output end of the output passage by using a conduit connected without bends to the output end of the output passage (Fig. 6).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 10, 11, 13, 17, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4886528 (Aaltonen et al.) in view of U.S. Patent 6,155,097 (Arnold). With respect to claims 10 and 17, Aaltonen et al. disclose an input passage (17, Fig. 6) having an input end and an output end (Fig. 6), an output passage (10, Fig. 6) having an input end and an output end (Fig. 6), a wall formed of a gas permeable and liquid impermeable material (Col. 2, lines 3-17) separating the input passage and the output passage (3, Fig. 6), means for introducing a gas sample containing liquid through the input end into the input passage (Col. 3 lines 15-17) with a first portion of the gas passing through said wall to the output passage and a second portion of the gas and the liquid remaining in the input passage (Col. 3 lines 17-31), a vacuum means (8, Fig. 5) for flowing the first portion of the gas through the output end

Art Unit: 2856

from the output passage to a measuring unit (5 and 6, Fig. 5), a first conduit connecting the output end of the input passage (13, Fig. 6) for conducting the second portion of the gas and the liquid further on with vacuum means. Aaltonen does not disclose the input passage being arranged to narrow towards the output end of the input passage.

However, Arnold discloses an input the input passage being arranged to narrow towards the output end of the input passage (Following arrow 124 in Figure 6, passage 118 in begins wider at the inlet 116 then narrows towards the input outlet where the top of conduit 118 comes in to a closer proximity to the membrane 128). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system taught in Aaltonen by narrowing the inlet passage towards the inlet output in order to constrict flow and create a more efficient extraction across the membrane (Arnold, Col. 11 lines 53-56).

With respect to claim 11, Arnold further discloses the narrowed portion of the input passage extends over at least about half of the input passage length (Fig. 8).

With respect to claim 13, Aaltonen et al. disclose a liquid receiving means (15, Fig. 6), which is connected to the output end of the input passage (13, Fig. 6) for conducting the second portion of the gas and the liquid to the liquid receiving means (Col. 3, lines 22-29).

With respect to claims 3 and 17, Aaltonen et al. disclose the output passage being arranged to widen towards the output end of the output passage (Elements 5, 6, and 8 chambers which are wider than passage 10).

With respect to claims 4 and 18, Arnold further discloses the narrowed portion of the input passage extends over at least about half of the input passage length (Fig. 8).

### ***Allowable Subject Matter***

Claims 7, 20 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 3,772,909 (Anderson) discloses a separator for a gas analyzer where an input passage narrows toward the outlet end of the input passage.

U.S. Patent 5,235,843 (Langhorst) discloses a separator for a gas analyzer where the output passage widens towards the outlet end of the output passage within the housing containing the separator.

U.S. Patent 4,894,163 (Watanabe et al.) disclose a liquid separator.

U.S. Patent 3,929,003 (Llewellyn) discloses a separator for a gas analyzer where there is a narrowing of the input passage towards the outlet of the input passage and a widening of the output passage towards the outlet of the output passage.




Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Christensen whose telephone number is 571-272-2683. The examiner can normally be reached on Monday - Friday, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RSC

  
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